Wild Salmon Stock Recovery Efforts In The State Of Washington

Introduction

The past two decades have seen a steady decline of many wild salmon stocks originating from Puget Sound and the Washington Coast. The huge population influx in Washington state over the past 20 years — and its attendant development, pollution and increased demand for water, among other factors — has resulted in a dramatic and well-documented loss of critical wild salmon habitat. Despite efforts by the tribes, state agencies and the federal government to protect freshwater habitat, the long-term decline in both the quantity and quality of available habitat continues. The result is wild salmon populations that are smaller and less productive.

Natural forces have also contributed to the decline of wild salmon stocks in the region. In some years the ocean-warming phenomenon known as El Nino has caused drought conditions during the summer months and a reduction in upwelling of cold, nutrient-rich ocean waters, which has contributed to reduced ocean survival and poor growth of young salmon.

Fisheries management agencies and processes have responded to these conditions with reduced fisheries, but because fisheries management is not an exact science, the response is sometimes inadequate or not soon enough to compensate for the declines in productivity. However, in many cases, the loss in production is offset with dramatically reduced fisheries to maintain spawning escapement levels.

In 1994, for example, manmade causes (primarily loss and degradation of habitat due to development) combined with natural causes (drought and ocean warming) to result in record low returns of wild coho and chinook salmon. In response, tribal, state and federal fisheries managers instituted the most restrictive fishing seasons ever imposed. Ocean fisheries were closed completely, while those in Puget Sound were reduced to a level never before experienced by tribal, sport and commercial fishermen. Fisheries in 1995 and 1996 were only marginally better. The result has been severe economic hardship for tribal fishermen from reservations where unemployment in many cases runs as high as 80 percent. Non-Indian commercial fishermen, gear suppliers, charter boat operators, marinas, tackle shops and associated industries also have been hard hit by the fishery closures.

For 1997, fishery managers are again predicting extremely low returns of salmon in many areas, and another round of severe fishing restrictions is likely.

Tribal, state and federal governments and their fisheries managers have realized the increased severity of the problems facing wild salmon and the need for a more focused approach to efforts to protect, restore and manage the resource. Several inter-related planning efforts have been initiated to specifically address the problems confronting wild salmon and steelhead populations. It is important to realize that these initiatives are in addition to many ongoing activities of the tribes and Washington Department of Fish and Wildlife (WDFW) — habitat enhancement, water quality programs and land-use planning reform, regulating fisheries and controlling the spread of fish diseases, for example — that are contributing significantly to the overall effort to improve the condition and management of wild salmon populations and their habitats.

The Wild Stock Restoration Initiative

The tribes and state fish and wildlife managers created the Wild Stock Restoration Initiative (WSRI) in 1991 in response to wild salmon and steelhead stock concerns and the anticipated filing of Endangered Species Act (ESA) petitions for many of those populations. The following general approach was established to address wild stock status and recovery:

- Inventory status of stocks;
- Review goals and objectives;
- Review management strategies (harvest, habitat and hatcheries);
- Develop recovery and management plans; and
- Monitoring and evaluation.

The mission of *For the Sake of the*

Salmon and Steelhead Stock Inventory (SASSI)

The first step in the Wild Stock Restoration Initiative — a statewide inventory of all salmon and steelhead stocks and their status — began in the spring of 1992. It took about one year to complete the Salmon and Steelhead Stock Inventory (SASSI), and another 18 months to complete the detailed appendices which provide the data and information used in the evaluation of stock status.

SASSI grouped Washington's 435 salmon and steelhead stocks into five status categories. Of the total, 187 stocks were categorized as healthy; 122 depressed; 12 critical; 113 unknown; and one extinct. SASSI will be periodically updated and revised to reflect changes in stock status gathered through monitoring and evaluation.

While compiling the SASSI document, it became apparent to the tribes and WDFW that it would be impossible to adequately assess salmon and steelhead habitat within the scope of the stock inventory. Because freshwater habitat is a basic limiting factor for the production of some salmon species, it was clear that an inventory of salmon and steelhead habitat must also be compiled.

Salmon and Steelhead Habitat Inventory and Assessment (SSHIAP)

Work on the second step in the Wild Stock Restoration Initiative — the Salmon and Steelhead Habitat Inventory and Assessment Project (SSHIAP) — began in 1995 and is expected to be completed in late 1997. Tribal participation in the first phase of this effort is being funded through a $400,000 congressional appropriation.

The SSHIAP project will ultimately result in a blueprint for joint tribal/state cooperative action to document current habitat conditions, assess the role of habitat degradation and loss in the condition of salmon and steelhead stocks, develop stock- or watershed-specific strategies for habitat protection and restoration, and define a cooperative process to implement habitat restoration and protection strategies.

Timeline

Because of the need for quick action to reverse the decline of wild salmon and steelhead stocks, SSHIAP is using existing habitat information. An initial habitat inventory database was expected to be completed in December, with efforts to update this information continuing throughout the life of the project. The completed assessment of habitat loss and degradation as it relates to the status of salmon and steelhead stocks will be available by October 1997. Like SASSI, the SSHIAP must be viewed as an ongoing process, not a one-time effort. Continued funding will therefore be necessary to support the project beyond the initial two-year effort.

SSHIAP reports will be prepared for each watershed in western Washington.

Results

SSHIAP products will include:

- Expanded habitat sections for the SASSI document that describe the location, amount and current condition of habitats used at various stages in the life of salmon and steelhead, historic habitat loss, and the natural and manmade factors contributing to habitat loss and degradation;
- A database that can be queried to provide graphical depictions of types and amounts of habitat lost and degraded and how this affects salmonid stocks of concern;
- Maps showing critical habitats used by each stock in each stage of its life;
- A habitat protection and restoration strategy for each stock and/or watershed;
- A list identifying future study needs to fill data gaps and improve the analysis; and
- A funding strategy to obtain resources necessary to implement habitat protection/restoration strategies and conduct necessary research.

SSHIAP reports will be prepared for each watershed in western Washington. Reports will include:

- An overview of each basin that includes a description of its location, stream net work, climate, geology; vegetation and general land-use patterns;

- A description of the salmon and steelhead stocks present in each basin, which includes general habitat needs for each life history phase of the identified stocks;

- A description and mapping of current and historic habitat distribution and use of important habitats in the life history phases of each species and stock;

- A description of current habitat conditions along with the extent and main causes of habitat loss and degradation for identified stream sections throughout each basin. Migration barriers and impacts to spawning and rearing habitat are some of the factors that will be examined. Other factors will include instream flows and water quality;

- An estimate of how habitat loss and degradation is affecting overall production of each stock in the basin, and identification of the most significant overall factors limit ing production; and

- A habitat protection and restoration strategy that identifies habitat goals and targets for habitat conditions; measures needed to protect habitat, including action by tribal, state, federal, local and private entities; and measures needed to restore habitat in the basin.

Wild Salmonid Policy

The Washington Legislature passed a bill in 1993 requiring WDFW to work jointly with appropriate Indian tribes to develop a Wild Salmonid Policy (ESHB 1309). After completing groundwork for the policy's development in the spring of 1994, WDFW produced a draft scoping document that included a variety of options to encourage further input into the policy's development. In late 1995, at the request of the state's governor, WDFW and the tribes were joined by relevant state agencies in efforts to develop the joint policy. Since July 1996 the tribes, a new WDFW administration and newly empowered state Fish and Wildlife Commission have struggled to develop a working relationship.

The Wild Salmonid Policy will define overall goals and objectives, as well as a set of guidelines for their implementation. It also will provide a consistent framework within which individual stock or watershed recovery plans can be developed.

While not originally begun as part of the WSRI discussed earlier, the Wild Salmonid Policy has been incorporated as the second major element of the WSRI. The policy will define overall goals and objectives, as well as a set of guidelines for their implementation. It also will provide a consistent framework within which individual stock or watershed recovery plans can be developed.

The Wild Salmonid Policy will address a number of key issues surrounding wild salmonid conservation and management, such as habitat needs, harvest management, genetic conservation and appropriate uses of hatchery programs.

For The Sake Of The Salmon

Drawing on the foundation and spirit of cooperative management that has revolutionized natural resource management in Washington state, a broad spectrum of governments, organizations and individuals joined hands in 1995 to create *For the Sake of the Salmon*, a new approach to protect and restore declining wild salmon stocks.

For the Sake of the Salmon is a framework for action based on cooperation by stakeholders on the Pacific Coast. It is this partnership that distinguishes the initiative as more than just another wild salmon recovery plan. Partners include tribal governments, the states of Washington, Oregon and California, counties and municipalities, the U.S. Environmental Protection Agency, U.S. Fish and Wildlife Service, National Marine Fisheries Service, Bureau of Indian Affairs, U.S. Forest Service, Bureau of Land Management, Natural Resources Conservation Service, public utility districts, the timber industry, sport and commercial fishing organizations and environmental groups.

Salmon is to restore salmon to levels that will ensure healthy sustainable natural populations and support productive fisheries, based on the premise that communities can develop the best restoration plan for their areas. The initiative provides a framework for consistent action to protect, enhance and restore salmon stocks along the entire West Coast.

The goals of *For the Sake of the Salmon* are to:

- Support and encourage formation of local watershed groups throughout the Northwest. These local watershed groups are bringing stakeholders together with surprising results. Plans developed by these local groups work better than those imposed from the outside.

- Develop a monitoring system that tracks progress toward measurable salmon recovery objectives. These objectives will cover both long- and short-term issues.

- Serve as a clearinghouse and troubleshooter for local watershed groups. *For the Sake of the Salmon* will keep local groups aware of each other's efforts and provide help in overcoming obstacles to success.

- Develop a regional package of proposed incentives for private landowners. Various levels of government already are using incentives to encourage private land owners to take part in restoration efforts.

- Serve as a forum for the resolution of issues related to salmon. Because *For the Sake of the Salmon* is not affiliated with any one particular group, it can provide an effective forum for developing regional consensus among diverse groups on issues ranging from harvest to hydropower.

- Encourage a conservation and stewardship ethic toward natural resources in government, the public and private industry decision making. *For the Sake of the Salmon* will offer better information about how decisions affect the salmon's environment and also offer reasonable alternatives for decision makers.

For the Sake of the Salmon received a $125,000 start-up grant from the National Marine Fisheries Service, with additional funding provided from participating stakeholders. The organization is governed by an executive committee composed of one representative from each stakeholder group.

In 1996 *For the Sake of the Salmon* received $1 million in federal funding to provide watershed coordinators throughout the region. Grants to fund the positions and related activities will be awarded to 31 regional watershed groups, enabling them to significantly increase their watershed protection and restoration work. Participants also worked to develop the infrastructure for a regional salmon restoration fund.

In addition, *For the Sake of the Salmon* is compiling a list of benchmarks that can be used to chart the Pacific region's progress in saving salmon. The first report card on the condition of salmon populations, watershed health and community commitment to saving the salmon will be issued in early 1998.

Wild Stock Restoration And The Endangered Species Act (ESA)

Federal fisheries management agencies have become aware of the overall decline in salmon and steelhead abundance and in response to numerous petitions, have been conducting status reviews under the ESA for all West Coast salmonids. Considerable state and tribal staff time has been devoted to assisting the federal agencies in conducting these reviews. Results of the WSRI will figure prominently in these ESA decision making processes.

For More Information

For more information about the natural resource management activities of the treaty Indian tribes in western Washington, contact the Northwest Indian Fisheries Commission, 6730 Martin Way E., Olympia, WA 98515; or call (360) 438-1180. The NWIFC home page is available on the World Wide Web at http://mako.nwifc.wa.gov.